

m

Notice of Allowability	Application No.	Applicant(s)	
	09/579,893	JECHOUX, BRUNO	
	Examiner	Art Unit	
	Dac V. Ha	2634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 08/04/04.
2. ☒ The allowed claim(s) is/are 1, 2, 4-12, renumbered as 1-11, respectively.
3. ☒ The drawings filed on 02/04/04 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Martin Geissler (Reg. No. 51,011) on 09/24/04.

The application has been amended as follows:

Claim 1:

Line 8, "control command" has been changed to --control command signal--

Line 11, "control command" has been changed to --control command signal--

Line 12, "the average" has been changed to --an average--

Claim 2:

Line 7, "said comparison" has been changed to --the comparison--

Claim 4:

Line 2, "said fading duration" has been changed to --said fast fading duration--

Line 6, "the received amplitude" has been changed to --the measured amplitude--

Line 7, " $(L = L_m L_{av})$ " has been changed to -- $(L = L_m / L_{av})$ --

Art Unit: 2634

Line 8, "the said transceiver" has been changed to --said transceiver--

Line 9, "the carrier" has been changed to --a carrier--

Claim 5:

Line 10, "the short-term average" has been changed to --a short-term average--

Line 11, "the time delay" has been changed to --a time delay--

Line 13, "the normalized" has been changed to --a normalized--

Claim 6:

Line 8, "power control command" has been changed to --power control command signal--

Line 10, "the short-term average" has been changed to --a short-term average--

Line 11, "the time delay" has been changed to --a time delay--

Line 12, "the normalized" has been changed to --a normalized--

Claim 7:

Line 8, "power control command" has been changed to --power control command signal--

Line 10, "power control command" has been changed to --power control command signal--

Line 11, "the measured amplitude" has been changed to --a measured amplitude--

Art Unit: 2634

Line 11, "the fading duration" has been changed to "the fast fading duration--

Line 12, "the time duration" has been changed to --a time duration--

Line 13, "the emission power setting" has been changed to --an emission power setting--

Line 14, "the average" has been changed to --an average--

Line 14, "it" has been changed to --the fast fading duration--

Line 15, "said time duration" has been changed to --the time duration--

Claim 8:

Line 2, "evaluated" has been changed to --estimated--

Line 4, "an emission power setting" has been changed to --the emission power setting--

Line 5, "power control command" has been changed to --power control command signal--

Line 5 "said comparison" has been changed to --the comparison--

Claim 10:

Line 2, "evaluates" has been changed to --estimates--

Line 8, "received amplitude" has been changed to --measured amplitude--

Line 9, "the short-term average" has been changed to --a short-term average--

Line 9, " $(L = L_m L_{av})$ " has been change to -- $(L = L_m / L_{av})$ --

Lines 10-11, "the other" has been changed to --another--

Art Unit: 2634

Line 11, "the carrier" has been changed to --a carrier--

Line 12, "communication system" has been changed to --apparatus--

Claim 11:

Line 14, "the short-term average" has been changed to --a short-term average--

Line 15, "the time delay" has been changed --a time delay--

Line 17, "the normalized" has been changed to --a normalized--

Claim 12:

Line 8, "power control command" has been changed to --power control command signal--

Line 10, "the short-term average" has been changed to --a short-term average--

Line 11, "the time delay" has been changed --a time delay--

The content of the Abstract has been replaced by the following:

The present invention relates to a method for use in controlling the emission power of a transceiver which is in communication with another transceiver via a communication system, said method including the steps of measuring the amplitude or the power of the signal received by said transceiver and of evaluating a power control command which is then used to command the emission power of said transceiver according to said control command signal. According to the invention, the method includes the steps of evaluating the fast fading duration of the received signal on basis

Art Unit: 2634

of said amplitude or power measurement and of deducing the power control command from said fast fading duration.

2. The following is an examiner's statement of reasons for allowance:

The present invention relates to method and apparatus for controlling emission power of a transceiver in a communication system. Normally, most telecommunications use power control method to methods to limit interference and power consumption at a defined quality condition. Conventional power control methods include measuring the received power of the radio signal (or its amplitude) and, on basis of the result of this measurement, of evaluating a power control command PC. The power control command PC is used to command a transmission unit so that it transmits signals with a power P corresponding to the command PC. However, due to the time duration between the moment of the input amplitude measurement and the moment of the use of the control command signal PC to command the emission power P, the conventional power control methods are based on a measurement and an evaluation which are made during reception and which are used to determine the power to be transmitted during the next emission. Thus, the channel features can have significantly changed between the evaluation and the application of the PC command. The power control command PC then wrongly compensates the channel variations, particularly in the case of fast fading losses. To this end, the present invention provides method for controlling the emission power of a transceiver in communication includes the steps of evaluating the fast fading duration and of deducing the power control command from the fast fading duration on

Art Unit: 2634

basis of the amplitude or the power measurement made by the receiver. Particularly, prior art of record (closest reference, Kondo – US Patent 6,178,193), taking alone or in combination with others, fails to suggest the motivation for incorporating in a method and apparatus for controlling an emission power of a transceiver including “evaluating a fast fading duration of the received signal based on the amplitude or power measurement; setting the power control command signal at the inverse of the measured amplitude if the fast fading duration higher than a time duration between the amplitude or power measurement and an emission power setting and setting the power control command signal at the inverse of an average of the measured amplitude if the fast fading duration is equal to or lower than the time duration” as claimed in independent claim 1 (claims 2, 4-6 depend from claim 1) and similar claimed subject matter in independent claim 7 (claims 8-12 depend therefrom). Therefore, claims 1, 2, 4-12 are found to be novel and unobvious over prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dac V. Ha whose telephone number is 571-273-3040. The examiner can normally be reached on 5/4.

Art Unit: 2634

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Dac V. Ha', with a horizontal line underneath.

Dac V. Ha
Examiner
Art Unit 2634